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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

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Examiner	:	Olga Hernandez
Applicant	:	Jan Ryderstam et al.
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For	:	TRACTIVE FORCE MAP

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SUPPLEMENTAL APPEAL BRIEF (37 CFR §41.37)

This brief is in furtherance of the Supplemental Appeal Brief filed in this case on May 29, 2007 and the Notification of Non-Compliant Appeal Brief mailed July 2, 2007. The fees required under §41.20(b)(2) have already been submitted and no additional fees are due. However, if there is any fee due in connection with the filing of this document, please charge the fee to our Deposit Account No. 06-1510.

This brief contains these items under the following headings, and in the order set forth below (37 CFR §41.37(c)):

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The final page of this brief bears the attorney's signature.

I. Real Party in Interest

The real party in interest in this application is Ford Global Technologies, Inc. The assignment from the inventors to Ford Motor Company was recorded on October 27, 2003 at Reel 014649, Frame 0451. The assignment from Ford Motor Company to Ford Global Technologies, Inc. was recorded on October 27, 2003 at Reel 014649, Frame 0406.

II. Related Appeals and Interferences

There are no related appeals or interferences pending during this application.

III. Status of Claims

Claims 1-20 are pending in this application. Claims 1-20 are the subject of this appeal.

IV. Status of Amendments

No Amendment After Appeal has been filed in this application.

V. Summary of Claimed Subject Matter

As described in the specification portion of the application (¶¶ 1-19), and illustrated in the related figures (FIGS. 1-3), the invention recited in the finally rejected claims relates to a tractive force map and a method of controlling tractive force of a vehicle.

According to claim 1, one aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line 19) comprising determining 50 (page 2, line 30) a tractive force request of a driver of the vehicle 10, determining 52 (page 5, line 4) an actual tractive force of the vehicle 10, and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 to be equal to the tractive force request.

According to claim 6, another aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line

19) comprising determining 50 (page 2, line 30) a tractive force request of a driver of the vehicle 10 (page 2, line 19), determining 52 (page 5, line 4) an actual tractive force of the vehicle 10 (page 2, line 19) and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The step of determining 52 (page 5, line 4) the actual tractive force comprises modeling the actual tractive force. The step of modeling the actual tractive force comprises modeling the actual tractive force as a function of at least one of the following: vehicle speed, engine speed, engine temperature, transmission temperature and ambient temperature. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line 19). The percentage of available tractive force is negative when the acceleration pedal 22 (page 2, line 24) is not being depressed and the vehicle is moving, thereby decelerating the vehicle 10 (page 2, line 19).

According to claim 9, yet another aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle comprising determining 50 (page 2, line 30) a tractive force request of a driver of the vehicle 10 (page 2, line 19), determining 52 (page 5, line 4) an actual tractive force of the vehicle 10 (page 2, line 19) and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line 19). The percentage of available tractive force is negative when the acceleration pedal 22 is not being depressed, thereby decelerating the vehicle 10 when the vehicle 10 (page 2, line 19) has a positive velocity.

According to claim 10, a further aspect of the present invention is to provide a method 24 of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line 19) comprising determining 50 (page 2, line 30) a tractive force request of a driver of the vehicle 10 (page 2, line 19), determining 52 (page 5, line 4) an actual tractive force of the vehicle 10 (page 2, line 19) and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line

19). The percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases.

According to claim 11, another aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line 19) comprising determining 50 (page 2, line 30) a tractive force request of a driver of the vehicle 10 (page 2, line 19), determining 52 (page 5, line 4) an actual tractive force of the vehicle 10 (page 2, line 19) and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line 19). The percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position.

According to claim 12, yet another aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line 19) comprising determining 50 (page 2, line 30) a tractive force request of a driver of the vehicle 10 (page 2, line 19), determining 52 (page 5, line 4) an actual tractive force of the vehicle 10 (page 2, line 19) and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line 19). The percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position.

According to claim 13, another aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line 19) comprising measuring an actual speed of the vehicle 10 (page 2, line 19) and sensing a position of an acceleration pedal 22 (page 2, line 24). The method also includes looking up the tractive force request on a map (FIG. 3) corresponding to the actual speed and the position of the acceleration pedal 22 (page 2, line 24). The method further includes modeling the actual

tractive force of the vehicle 10 (page 2, line 19) and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request.

According to claim 16, a further aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 of a vehicle 10 (page 2, line 19) comprising measuring an actual speed of the vehicle 10 (page 2, line 19), sensing a position of an acceleration pedal 22 (page 2, line 24), looking up the tractive force request on a map (FIG. 3) corresponding to the actual speed and the position of the acceleration pedal 22 (page 2, line 24), modeling the actual tractive force of the vehicle 10 (page 2, line 19), and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line 19). The percentage of available tractive force is negative when the acceleration pedal 22 (page 2, line 24) is not being depressed and the vehicle 10 (page 2, line 19) is moving, thereby decelerating the vehicle 10 (page 2, line 19) when the vehicle 10 (page 2, line 19) has a positive velocity.

According to claim 17, an aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line 19) comprising measuring an actual speed of the vehicle 10 (page 2, line 19), sensing a position of an acceleration pedal 22 (page 2, line 24), looking up the tractive force request on a map (FIG. 3) corresponding to the actual speed and the position of the acceleration pedal 22 (page 2, line 24), modeling the actual tractive force of the vehicle 10 (page 2, line 19), and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line 19). The percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle 10 (page 2, line 19) increases.

According to claim 18, another aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line 19) comprising measuring an actual speed of the vehicle 10 (page 2, line 19), sensing a

position of an acceleration pedal 22 (page 2, line 24), looking up the tractive force request on a map (FIG. 3) corresponding to the actual speed and the position of the acceleration pedal 22 (page 2, line 24), modeling the actual tractive force of the vehicle 10 (page 2, line 19), and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line 19). The percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position.

According to claim 19, yet another aspect of the present invention is to provide a method 24 (page 2, line 28) of controlling tractive force 18 (page 2, line 23) of a vehicle 10 (page 2, line 19) comprising measuring an actual speed of the vehicle 10 (page 2, line 19), sensing a position of an acceleration pedal 22 (page 2, line 24), looking up the tractive force request on a map (FIG. 3) corresponding to the actual speed and the position of the acceleration pedal 22 (page 2, line 24), modeling the actual tractive force of the vehicle 10 (page 2, line 19), and modifying 54 (page 5, line 25) the actual tractive force of the vehicle 10 (page 2, line 19) to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle 10 (page 2, line 19). The percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position.

VI. Grounds of Rejection to Be Reviewed on Appeal

Claims 1-5, 8 and 13-15 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,528,959 to Kitano et al. (hereinafter referred to as "the Kitano et al. '959 patent").

Claims 6, 7, 9-12 and 16-20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over the Kitano et al. '959 patent.

III. Argument

A. Rejection of Claims 1-5, 8 and 13-15 under 35 U.S.C. §102(e) as Being Anticipated by U.S. Patent No. 6,528,959 to Kitano et al.

Claims 1-5, 8 and 13-15 have been rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,528,959 to Kitano et al. "Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added). In proceedings before the Patent and Trademark Office, the Examiner bears the burden of establishing a prima facie case of anticipation based upon the prior art. *In re Sun*, 31 U.S.P.Q.2d 1451, 1453 (Fed. Cir. 1993) (unpublished). The Office Action has not set forth a prima facie case of anticipation to reject claims 1-5, 8 and 13-15.

Claims 1 and 2

Claim 1 defines a method of controlling tractive force of a vehicle comprising determining a tractive force request of a driver of the vehicle, determining an actual tractive force of the vehicle, and modifying the actual tractive force of the vehicle to be equal to the tractive force request.

The prior art of record does not disclose the above noted features of claim 1. According to the Office Action:

> Kitano discloses about determining a tractive force request of a driver of the vehicle; determining/demanding an actual tractive force of the vehicle; and modifying the actual tractive force of the vehicle to be equal to the tractive force request/demand (see Kitano, FIG. 3 "actual tractive force" is "TARGET FRONT-WHEEL DRIVING FORCE" S35 and "CALCULATE TARGET FRONT-WHEEL DRIVING FORCE" is a modifying/modeling step; column 3, lines 35-48, column 7, lines 18-24, 57-67, figures 2, 3, 29).

However, the portions of the Kitano et al. '959 patent pointed out in the Office Action do not disclose the claimed features and Applicants submit that that Kitano et al. '959 patent does not

disclose the current features of claim 1 anywhere in the patent.

The Kitano et al. '959 patent is drawn to a vehicle having front wheels driven by an engine and rear wheels driven by a separate electric motor. The control system for the vehicle preserves driving stability of a vehicle when the vehicle is traveling on a low-friction surface and when the vehicle is turning and also allows the electric motor to be driven without developing a torque step when the vehicle is accelerated. However, the Kitano et al. '959 patent does not disclose modifying an actual tractive force of the vehicle to be equal to a tractive force request.

According to the Office Action, the Kitano et al. '959 patent discloses an actual tractive force as the target front-wheel driving force in FIG. 3 as step S35 and modifying an actual tractive force as "calculate target front-wheel driving force." However, S35 of FIG. 3 of the Kitano et al. '959 patent has the step as "calculate target front-wheel driving force." Accordingly, it appears that the Office Action is using one step of a method of the Kitano et al. '959 patent to reject two steps of claim 1 of the present application. However, the one step cited in the Kitano et al. '959 patent in the Office Action does not include both determining an actual tractive force of a vehicle and modifying the actual tractive force of the vehicle to be equal to a tractive force request. Notably, the step S35 as set forth in the Office Action is only calculating and not modifying.

The Office Action then cites lines 35-48 of column 3 of the Kitano et al. '959 patent for including the features of claim 1. Lines 35-48 of column 3 of the Kitano et al. '959 patent state that the driving force control system of the Kitano et al. '959 patent includes:

> driving force demand degree-detecting means for detecting a degree of demand for a driving force for driving the vehicle;
>
> target driving force-calculating means for calculating a target driving force for driving the vehicle, based on at least the vehicle speed and the degree of demand for the driving force;
>
> traveling condition-determining means for determining a present traveling condition of the vehicle; and
>
> driving force control means for controlling a driving force of the engine and a driving force of the electric motor based on the calculated target driving force, in dependence on the traveling condition of the vehicle determined by the traveling condition-determining means.

Therefore, this cited section discloses that the driving force control means for controlling the driving force of the engine and a driving force of the electric motor are dependent on the traveling condition of the vehicle as determined by the traveling condition-determining means of the system. However, this cited section does not include either determining an actual tractive force of the vehicle or modifying an actual tractive force of the vehicle to be equal to a tractive force request. Applicant notes that the traveling condition-determining means for determining a present traveling condition of the vehicle in this cited section refers to whether the vehicle is in a forward drive mode, a reverse drive mode, a forward decelerating regeneration mode, a reverse decelerating regeneration mode or a stoppage mode, as outlined in lines 1-21 of column 13 of the Kitano et al. '959 patent. Therefore, this cited section does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request.

The Office Action also cites lines 18-24 of column 7 of the Kitano et al. '959 patent. Lines 18-24 of column 7 of the Kitano et al. '959 patent state that:

> according to the preferred embodiment, when the released condition of the accelerator pedal is detected, the engine braking force is calculated according to the detected vehicle speed, and the target braking force of the electric motor is set to a value equal to the calculated engine braking force, whereby the behavior
>
> of the vehicle in decelerating travel by release of the accelerator pedal can be stabilized.

However, this cited paragraph refers to setting the braking force of an electric motor 4 controlling rear wheels WRR and WRL of a vehicle 2 when the vehicle 2 has an engine braking force of the engine 3. Accordingly, this section does not refer to determining a tractive force request of a driver of a vehicle, determining an actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request.

The Office Action has also cited lines 57-67 of column 7 of the Kitano et al. '959 patent. Lines 57-67 of column 7 of the Kitano et al. '959 patent are drawn to the third object of the disclosed system. According to the Kitano et al. '959 patent:

> It is a third object of the invention to provide a driving force control system for a front-and-rear wheel drive vehicle that enables the assistance of an electric motor to be smoothly performed without developing a torque step when the vehicle is accelerated, thereby ensuring an excellent acceleration and drivability.

Lines 20-25 of column 3. Therefore, according to the Kitano '959 patent, lines 56-67 of column 7 are drawn to using the system to obtain the objective of assisting an electric motor as a drive source for left and right rear wheels. However, lines 57-67 of column 7 do not refer to determining an actual tractive force of a vehicle or modifying the actual tractive force of the vehicle to be equal to the tractive force request of a driver of the vehicle. This quoted section is only drawn to driving the electric motor 4, not the actual drive force of a vehicle.

Finally, Figs. 2, 3 and 29 of the Kitano et al. '959 patent are drawn to a flow chart of a main flow of a driving force control process, a flow chart of a subroutine for a driving force-calculating process, and a flow chart of a target rear-wheel driving force-calculating subroutine, which is executed by a driving force control system according to a third embodiment of the invention, respectively. Therefore, Figs. 2 and 3 are for the first embodiment of the invention and Fig. 29 is the third embodiment of the invention. Nevertheless, none of these figures and related description disclose modifying an actual tractive force of a vehicle to be equal to a tractive force request of a driver of a vehicle.

Accordingly, nowhere in the sections cited by the Office Action or in the Kitano et al. '959 patent is disclosed modifying a tractive force of a vehicle to be equal to a tractive force request of a driver of a vehicle. The Kitano et al. '959 patent does not disclose modifying "the 'real' tractive force" to be equal to a "'target' driving force" as set forth in the Office Action. Accordingly, claim 1 is in condition for allowance.

Furthermore, claim 2 depends from claim 1, and since claim 1 defines unobvious patentable subject matter, claim 2 defines patentable subject matter.

Claim 3

Claim 3 depends from claim 1 and further defines the step of determining the actual tractive force as comprising modeling the actual tractive force. The prior art of record does not disclose the above noted features of claim 3. First, claim 3 depends from claim 1, and

since claim 1 defines unobvious patentable subject matter as discussed above, claim 3 defines patentable subject matter. Second, the prior art of record does not disclose all of the above noted features of claim 3. According to the Office Action, the Kitano et al. '959 patent discloses modeling an actual tractive force in the abstract and step S35 in FIG. 3. However, the abstract of the Kitano et al. '959 patent only refers to calculating a target driving force and determining a present traveling condition of a vehicle. Furthermore, as outlined in lines 1-20 of column 15 of the Kitano et al. '959 patent, the present traveling condition of the vehicle is either a forward drive mode, a reverse drive mode, a forward deceleration regeneration mode, a reverse deceleration regeneration mode or a stoppage mode. Furthermore, step S35 of the Kitano et al. '959 patent does not outline determining an actual tractive force. None of these determine an actual tractive force of a vehicle by modeling an actual tractive force. Accordingly, claim 3 is in condition for allowance.

Claim 4

Claim 4 depends from claim 3 and further defines the step of modeling the actual tractive force as comprising modeling the actual tractive force as a function of at least one of vehicle speed, engine speed, engine temperature, transmission temperature and ambient temperature. The prior art of record does not disclose the above noted features of claim 4. First, claim 4 depends from claims 3 and 1, and since claims 3 and 1 define patentable subject matter as discussed above, claim 4 defines patentable subject matter. Second, contrary to the Office Action, the Kitano et al. '959 patent does not disclose modeling an actual tractive force as a function of the vehicle speed in the abstract. According to the abstract or in FIG. 4, "[t]he target driving force for driving the vehicle is calculated based on at least a vehicle speed and an acceleration pedal opening." However, this phrase does not refer to the actual tractive force of the vehicle. Third, FIG. 4 of the Kitano et al. '959 patent is not drawn to an actual tractive force. Accordingly, claim 4 is in condition for allowance.

Claim 5

Claim 5 depends from claim 4 and further defines the tractive force request as comprising a request for a percentage of maximum available tractive force of the vehicle. The prior art of record does not disclose the above noted features of claim 5. First, claim 5 depends from claims 4, 3 and 1, and since claims 4, 3 and 1 define patentable subject matter as discussed above, claim 5 defines patentable subject matter. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of the vehicle as set forth in the Office Action. In rejecting claim 5, the Office Action has cited lines 1-15 of column 41 of the Kitano et al. '959 patent. However, this section only refers to a target driving force for the electric motor 4 for driving the rear wheels of the vehicle. This is not a percentage of maximum available tractive force of the vehicle. Accordingly, claim 5 is in condition for allowance.

Claim 8

Claim 8 depends from claim 1, and further defines the tractive force request as comprising a request for a percentage of maximum available tractive force of the vehicle. The prior art of record does not disclose the above noted features of claim 8. First, claim 8 depends from claim 1, and since claim 1 defines unobvious patentable subject matter as discussed above, claim 8 defines patentable subject matter. Second, as discussed above in regard to claim 5, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle as set forth in the final Office Action. Accordingly, claim 8 is in condition for allowance.

Claim 13

Claim 13 defines a method for controlling tractive force of a vehicle comprising measuring an actual speed of the vehicle, sensing a position of an acceleration pedal, looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal, modeling the actual tractive force of the vehicle, and modifying the actual tractive force of the vehicle to be equal to the tractive force request.

The prior art of record does not disclose the above noted features of claim 13. Specifically, as discussed above regarding claim 1, the Kitano et al. '959 patent does not disclose modifying an actual tractive force of a vehicle to be equal to a tractive force request. The Kitano et al. '959 patent does not disclose modifying "the 'real' tractive force" to be equal to a "'target' driving force" as set forth in the Office Action. Furthermore, as discussed above in regard to claim 3, contrary to the Office Action, the abstract, FIG. 4 and lines 18-26 of column 15 of the Kitano et al. '959 patent does not disclose or suggest modeling an actual tractive force of a vehicle. Accordingly, claim 13 is in condition for allowance.

Claim 14

Claim 14 depends from claim 13 and further defines the step of modeling the actual tractive force as comprising modeling the actual tractive force as a function of at least one of vehicle speed, engine speed, engine temperature, transmission temperature and ambient temperature. The prior art of record does not disclose the above noted features of claim 14. First, claim 14 depends from claim 13, and since claim 13 defines unobvious patentable subject matter as discussed above, claim 14 defines patentable subject matter. Second, as discussed above in regard to claim 4, the abstract and FIG. 4 do not disclose modeling an actual tractive force as a function of vehicle speed. Accordingly, claim 14 is in condition for allowance.

Claim 15

Claim 15 depends from claim 13, and further defines the tractive force request as comprising a request for a percentage of maximum available tractive force of the vehicle. The prior art of record does not disclose the above noted features of claim 15. First, claim 15 depends from claim 13, and since claim 13 defines unobvious patentable subject matter as discussed above, claim 15 defines patentable subject matter. Second, as discussed above in regard to claims 5 and 8, the Kitano et al. '959 patent does not disclose a tractive force request as comprising a request for a percentage of maximum available tractive force of a vehicle in lines 1-15 of column 41 of the Kitano et al. '959 patent. Accordingly, claim 15 is in condition for allowance.

B. Rejection of Claims 6, 7, 9-12 and 16-20 under 35 U.S.C. §103(a) as Being Obvious Over U.S. Patent No. 6,528,959 to Kitano et al.

Claims 6, 7, 9-12 and 16-20 of this application have been rejected as being obvious under 35 U.S.C.§ 103. As further discussed below, Applicants respectfully submit that a *prima facie* case of obviousness has not been established. The test for obviousness has recently been addressed by the U.S. Supreme Court in *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007). In its decision, the Supreme Court stated that the teaching-suggestion-motivation (TSM) standard developed by the Federal Circuit was no longer the sole test for determining obviousness. Nevertheless, the Court indicated that the TSM test provides helpful insights as to the obviousness of the invention. With respect to the TSM test, the U.S. Patent and Trademark Office, which had adopted that test, set forth the requirements for making a *prima facie* case of obviousness are described in MPEP §2143 as follows:

> To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. ***Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations***.
>
> The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). [emphasis added]

The U.S. Supreme Court held that the TSM standard was not the sole standard for finding obviousness, one element to the finding of a *prima facie* case of obviousness is common to both the TSM standard and the standards that may otherwise fall within the per view of the *KSR* decision. Specifically, each and every element of the claimed invention must still be found in the prior art. As will be set forth below, there are elements of the claimed invention that are missing in their entirety from the cited prior art.

Further, with respect to the recent Supreme Court decision in *KSR Int'l. Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007), the Deputy Commissioner for Patent

Operations has issued a memo advising the examiners that "in formulating a rejection under 35 U.S.C. § 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed."

Claim 6

Claim 6 defines a method of controlling tractive force of a vehicle comprising determining a tractive force request of a driver of the vehicle, determining an actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The step of determining the actual tractive force comprises modeling the actual tractive force. The step of modeling the actual tractive force comprises modeling the actual tractive force as a function of at least one of the following: vehicle speed, engine speed, engine temperature, transmission temperature and ambient temperature. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle. The percentage of available tractive force is negative when the acceleration pedal is not being depressed and the vehicle is moving, thereby decelerating the vehicle.

The above noted features of claim 6 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that a percentage of available tractive force is negative when the acceleration pedal is not being depressed and the vehicle is moving, thereby accelerating the vehicle. Applicant notes that the Kitano et al. '959 patent and the modification as set forth in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano "suggests about using 'tractive force in range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action. Nevertheless, Applicants submit that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 6. Fifth, no where does the

Kitano et al. '959 patent nor the Office Action address the fact that claim 6 states that the percentage of available tractive force is negative when the acceleration pedal is not being depressed and the vehicle is moving. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 6 is in condition for allowance.

Claim 7

Claim 7 depends from claim 6, and further defines the percentage of available tractive force of the request for the percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration position as the speed of the vehicle increases. The above noted features of claim 7 are not obvious over the prior art of record. First, claim 7 depends from claim 6, and since claim 6 defines unobvious patentable subject matter as discussed above, claim 7 defines patentable subject matter. Second, the Kitano et al. '959 patent and the Office Action do not reference anywhere that the percentage of available tractive force decreases for a given acceleration position as the speed of the vehicle increases. Accordingly, claim 7 is in condition for allowance.

Claim 9

Claim 9 defines a method of controlling tractive force of a vehicle comprising determining a tractive force request of a driver of the vehicle, determining an actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle wherein the percentage of available tractive force is negative when the acceleration pedal is not being depressed, thereby decelerating the vehicle when the vehicle has a positive velocity.

The above noted features of claim 9 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request, as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a

vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that a percentage of available tractive force is negative when the acceleration pedal is not being depressed, thereby decelerating the vehicle when the vehicle has a positive velocity. Applicant notes that the Kitano et al. '959 patent and the modification as set forth in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano "suggests about using 'tractive force in a range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action. Nevertheless, Applicants submits that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 9. Finally, no where does the Kitano et al. '959 patent nor the Office Action address the fact that claim 9 states that the percentage of available tractive force is negative when the acceleration pedal is not being depressed. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 9 is in condition for allowance.

Claim 10

Claim 10 defines a method of controlling tractive force of a vehicle comprising determining a tractive force request of a driver of the vehicle, determining an actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle. The percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases.

The above noted features of claim 10 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request, as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that the percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the

vehicle increases. Applicant notes that the Kitano et al. '959 patent and the modification as set forth in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano "suggests about using 'tractive force in a range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action or how this would apply to claim 10. Nevertheless, Applicants submit that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 10. Fifth, no where does the Kitano et al. '959 patent nor the Office Action address the fact that claim 10 states that the percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 10 is in condition for allowance.

Claim 11

Claim 11 defines a method of controlling tractive force of a vehicle comprising determining a tractive force request of a driver of the vehicle, determining an actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle. The percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position.

The above noted features of claim 11 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request, as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that the percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position. Applicant notes that the Kitano et al. '959 patent and the modification as set forth

in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano "suggests about using 'tractive force in a range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action or how this would apply to claim 11. Nevertheless, Applicants submits that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 11. Fifth, no where does the Kitano et al. '959 patent nor the Office Action address the fact that claim 11 states that the percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 11 is in condition for allowance.

Claim 12

Claim 12 defines a method of controlling tractive force of a vehicle comprising determining a tractive force request of a driver of the vehicle, determining an actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle. The percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position.

The above noted features of claim 12 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request, as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that the percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position. Applicant notes that the Kitano et al. '959 patent and the modification as set forth in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano

"suggests about using 'tractive force in a range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action or how this would apply to claim 12. Nevertheless, Applicants submit that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 12. Fifth, no where does the Kitano et al. '959 patent nor the Office Action address the fact that claim 12 states that the percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 12 is in condition for allowance.

Claim 16

Claim 16 defines a method of controlling tractive force of a vehicle comprising measuring an actual speed of the vehicle, sensing a position of an acceleration pedal, looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal, modeling the actual tractive force of the vehicle, and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle. The percentage of available tractive force is negative when the acceleration pedal is not being depressed and the vehicle is moving, thereby decelerating the vehicle when the vehicle has a positive velocity.

The above noted features of claim 16 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request, as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that the percentage of available tractive force is negative when the acceleration pedal is not being depressed and the vehicle is moving, thereby decelerating the vehicle when the vehicle has a positive velocity. Applicant notes that the Kitano et al. '959 patent and the

modification as set forth in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano "suggests about using 'tractive force in a range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action or how this would apply to claim 16. Nevertheless, Applicants submits that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 16. Fifth, no where does the Kitano et al. '959 patent nor the Office Action address the fact that claim 16 states that the percentage of available tractive force is negative when the acceleration pedal is not being depressed and the vehicle is moving, thereby decelerating the vehicle when the vehicle has a positive velocity. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 16 is in condition for allowance.

Claim 17

Claim 17 defines a method of controlling tractive force of a vehicle comprising measuring an actual speed of the vehicle, sensing a position of an acceleration pedal, looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal, modeling the actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle. The percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases.

The above noted features of claim 17 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request, as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that the percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases. Applicant notes that the Kitano et al. '959 patent and the modification as set

forth in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano "suggests about using 'tractive force in a range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action or how this would apply to claim 17. Nevertheless, Applicants submits that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 17. Fifth, no where does the Kitano et al. '959 patent nor the Office Action address the fact that claim 17 states that the percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 17 is in condition for allowance.

Claim 18

Claim 18 defines a method of controlling tractive force of a vehicle comprising measuring an actual speed of the vehicle, sensing a position of an acceleration pedal, looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal, modeling the actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle. The percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position.

The above noted features of claim 18 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request, as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that the percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position. Applicant notes that the Kitano et al. '959 patent and the modification as set forth

in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano "suggests about using 'tractive force in a range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action or how this would apply to claim 18. Nevertheless, Applicants submits that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 18. Fifth, no where does the Kitano et al. '959 patent nor the Office Action address the fact that claim 18 states that the percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 18 is in condition for allowance.

Claim 19

Claim 19 defines a method of controlling tractive force of a vehicle comprising measuring an actual speed of the vehicle, sensing a position of an acceleration pedal, looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal, modeling the actual tractive force of the vehicle and modifying the actual tractive force of the vehicle to be equal to the tractive force request. The tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle. The percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position.

The above noted features of claim 19 are not obvious over the prior art of record. First, the Kitano et al. '959 patent does not disclose determining an actual tractive force of a vehicle or modifying an actual tractive force of a vehicle to be equal to a tractive force request, as discussed above in regard to claim 1. Second, the Kitano et al. '959 patent does not disclose a tractive force request that comprises a request for a percentage of maximum available tractive force of a vehicle, as discussed above in regard to claim 5. Third, the Kitano et al. '959 patent does not disclose that the percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position. Applicant notes that the Kitano et al. '959 patent and the modification as set forth

in the Office Action would not include this feature. Fourth, Applicants are unsure where Kitano "suggests about using 'tractive force in a range' that including (sic) specifying a percentage of available tractive force" as set forth in the Office Action or how they apply to claim 19. Nevertheless, Applicants submits that the Office Action has not clearly set forth a modification of the Kitano et al. '959 patent to reject claim 19. Fifth, no where does the Kitano et al. '959 patent nor the Office Action address the fact that claim 19 states that the percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position. None of the features are discussed in the Kitano et al. '959 patent or the Office Action. Accordingly, claim 19 is in condition for allowance.

Claim 20

Claim 20 depends from claim 19 and further defines the method of controlling tractive force wherein the percentage of available tractive force of request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position.

The above noted features of claim 20 are not obvious over the prior art of record. First, claim 20 depends from claim 19, and since claim 19 defines unobvious patentable subject matter as discussed above, claim 20 defines patentable subject matter. Second, the Kitano et al. '959 patent and the Office Action do not reference anywhere that the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position. Accordingly, claim 20 is in condition for allowance.

IV. Conclusion

Each claim is definite and recites features that are not disclosed in any of the cited references and it would not have been obvious to modify the cited references to include the recited features of the appealed claims. The reference upon which the Examiner relies in the Examiner's rejection of the claims does not disclose or make obvious a method as claimed. Applicant's invention resolves problems and inconveniences experienced in the prior art, and

therefore represents a significant advancement in the art. Applicant earnestly requests that the Examiner's rejection of claims 1-20 be reversed, and that the application be passed to allowance forthwith.

Respectfully submitted,

7/17/07
Date

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Appendix of Claims (35 USC §41.37(c)

1. A method of controlling tractive force of a vehicle comprising:

determining a tractive force request of a driver of the vehicle;

determining an actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request.

2. The method of controlling tractive force of claim 1, wherein:

the step of determining the tractive force request comprises:

measuring an actual speed of the vehicle;

sensing a position of an acceleration pedal;

looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal.

3. The method of controlling tractive force of claim 1, wherein:

the step of determining the actual tractive force comprises:

modeling the actual tractive force.

4. The method of controlling tractive force of claim 3, wherein:

the step of modeling the actual tractive force comprises:

modeling the actual tractive force as a function of at least one of the following:

vehicle speed, engine speed, engine temperature, transmission temperature and ambient temperature.

5. The method of controlling tractive force of claim 4, wherein:

the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle.

6. A method of controlling tractive force of a vehicle comprising:

determining a tractive force request of a driver of the vehicle;

determining an actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the step of determining the actual tractive force comprises modeling the actual tractive force;

wherein the step of modeling the actual tractive force comprises modeling the actual tractive force as a function of at least one of the following:

vehicle speed, engine speed, engine temperature, transmission temperature and ambient temperature;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force is negative when the acceleration pedal is not being depressed and the vehicle is moving, thereby decelerating the vehicle.

7. The method of controlling tractive force of claim 6, wherein:

the percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases.

8. The method of controlling tractive force of claim 1, wherein:

the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle.

9. A method of controlling tractive force of a vehicle comprising:

determining a tractive force request of a driver of the vehicle;

determining an actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force is negative when the acceleration pedal is not being depressed, thereby decelerating the vehicle when the vehicle has a positive velocity.

10. A method of controlling tractive force of a vehicle comprising:

determining a tractive force request of a driver of the vehicle;

determining an actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases.

11. A method of controlling tractive force of a vehicle comprising:

determining a tractive force request of a driver of the vehicle;

determining an actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position.

12. A method of controlling tractive force of a vehicle comprising:

determining a tractive force request of a driver of the vehicle;

determining an actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position.

13. A method of controlling tractive force of a vehicle comprising:

measuring an actual speed of the vehicle;

sensing a position of an acceleration pedal;

looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal;

modeling the actual tractive force of the vehicle;

modifying the actual tractive force of the vehicle to be equal to the tractive force request.

14. The method of controlling tractive force of claim 13, wherein:

the step of modeling the actual tractive force comprises:

modeling the actual tractive force as a function of at least one of the following:

vehicle speed, engine speed, engine temperature, transmission temperature and ambient temperature.

15. The method of controlling tractive force of claim 13, wherein:

the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle.

16. A method of controlling tractive force of a vehicle comprising:

measuring an actual speed of the vehicle;

sensing a position of an acceleration pedal;

looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal;

modeling the actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force is negative when the acceleration pedal is not being depressed and the vehicle is moving, thereby decelerating the vehicle when the vehicle has a positive velocity.

17. A method of controlling tractive force of a vehicle comprising:

measuring an actual speed of the vehicle;

sensing a position of an acceleration pedal;

looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal;

modeling the actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force of the request for the percentage of available tractive force decreases for a given acceleration pedal position as the speed of the vehicle increases.

18. A method of controlling tractive force of a vehicle comprising:

measuring an actual speed of the vehicle;

sensing a position of an acceleration pedal;

looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal;

modeling the actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position.

19. A method of controlling tractive force of a vehicle comprising:

measuring an actual speed of the vehicle;

sensing a position of an acceleration pedal;

looking up the tractive force request on a map corresponding to the actual speed and the position of the acceleration pedal;

modeling the actual tractive force of the vehicle; and

modifying the actual tractive force of the vehicle to be equal to the tractive force request;

wherein the tractive force request comprises a request for a percentage of maximum available tractive force of the vehicle; and

wherein the percentage of available tractive force of the request for the percentage of available tractive force decreases as a function of a negative rate of change of the acceleration pedal position.

20. The method of controlling tractive force of claim 19, wherein:

the percentage of available tractive force of the request for the percentage of available tractive force increases as a function of a positive rate of change of the acceleration pedal position.

Evidence Appendix (35 USC §41.37(c))

There was no evidence submitted during this application under 37 CFR §1.130, 1.131 or 1.132 or any evidence entered by the Examiner and replied upon by Appellant in the appeal.

Related Proceedings Appendix (35 USC §41.37(c))

There are no related appeals or interferences pending during this application.